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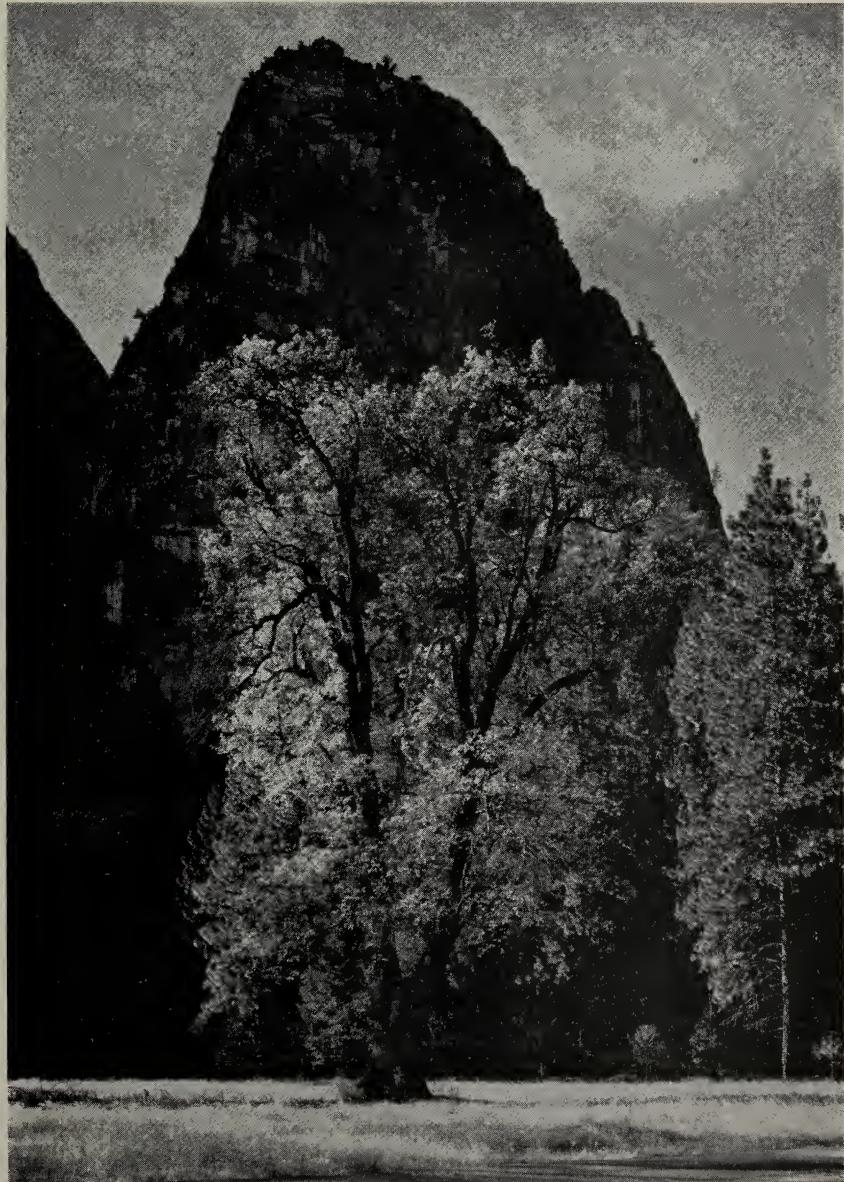
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YOSEMITTE NATURE NOTES

VOLUME XXIV • NUMBER 10

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OCTOBER 1955



Autumn in Yosemite Valley
—Ansel Adams



In the Mariposa Grove of Giant Sequoias, winter. By Ansel Adams from "Yosemite and the Sierra Nevada", permission of Houghton Mifflin Company.

Yosemite Nature Notes

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John C. Preston, Superintendent

D. H. Hubbard, Assoc. Park Naturalist

D. E. McHenry, Park Naturalist

W. W. Bryant, Asst. Park Naturalist

W. C. Bullard, Junior Park Naturalist

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NO. 10

THE ORIGIN OF THE NATIONAL PARK IDEA IN AMERICA

A Condensation by Douglass H. Hubbard
Associate Park Naturalist

EDITOR'S NOTE: The following article is a condensation of Dr. Hans Huth's fine "Yosemite, The Story of an Idea", which first appeared in the *Sierra Club Bulletin* for March 1948 and a report by Frederick Law Olmstead, "The Yosemite Valley and the Mariposa Big Trees". This 1865 report, prophetic concerning Yosemite, was lost for many years. It was found in 1952 by Miss Stella Obst and published, with an introductory note by Laura Wood Roper, in *Landscape Architecture* for October 1952. The material is used with the kind permission of Dr. Huth and Mrs. Roper, and the editors of the *Sierra Club Bulletin* and *Landscape Architecture*.

Part 1

Historians have been prone to accept the statement that the national park idea was born at a campfire in Yellowstone in 1870. In reality, Congressional action had set aside the Yosemite Valley and the Mariposa Grove of Giant Sequoias six years before that date that they might be enjoyed forever as scenic resources for all the people.

One of the most interesting articles ever written about the birth and growth of the national park idea is Hans Huth's *Yosemite, The Story of an Idea*, which appeared in the *Sierra Club Bulletin* several years ago. Dr. Huth has never seen Yosemite so cannot be considered a prejudiced writer. In his article he traces from George Catlin, the Indian painter, who first suggested setting apart a national park in 1832, through the

evolution and growth of the idea to its first practical application in Yosemite in 1864.

Let's take a few minutes to trace, with Dr. Huth and others, the course of man's interest in nature in America to its culmination in our great national park system of today. Incidentally, copies of Dr. Huth's interesting booklet are available at the Yosemite museum.

I. Introduction

"In the course of the growth of the National Park System it has been frequently stated that with the establishment of Yellowstone National Park in 1872, the idea of national parks was born. More specifically, it has been said that members of the Washburn-Doane Expedition of

1870, in a campfire discussion in Yellowstone, laid the foundation for the national park pattern, and that from there on, like apostles, they carried the new gospel to the people.

"If things really had happened this way, it would indeed have been something of a miracle. It would have meant that public opinion had been prepared for this supposedly new and unique idea in little more than a year, and that Congress was ready to act favorably 'to set apart the vast territory of Yellowstone as a public park or pleasure ground for the benefit and enjoyment of the people.' Ideas of such far-reaching consequence do not ripen overnight; they develop slowly . . . Any attempt to elucidate the evolution of the national park idea must start by exploring two different processes. One is the legal procedure used for transforming an area into a park for public use, as exemplified in the history of the setting up of Yosemite or Yellowstone as segregated areas under state or federal authority. The other is a process which seems more important and has been given little attention — the shaping of public opinion so that it will either demand or suffer conservation measures. Contrary to the usual assumption, it was not the establishment of Yellowstone but rather the setting apart of Yosemite which was preeminent in the basic conditioning of opinion. Yosemite is the point of departure from which a new idea began to gain momentum. Where the idea will lead can hardly be envisaged, but we do know that the manner in which the entire park system developed in this country is specifically American; the system is an institution admirably suited to fill the needs of the people.

II. The American and Nature

" . . . The attitude of the colonial toward nature . . . [is] borne out in a little poem published in 1692:

In such a wilderness . . .

When we began to clear the
Land . . .

Then with the Ax, with Might
and Strength,

The trees so thick and strong . . .
We laid them all along . . .

(These) we with Fire, most furiously
To Ashes did confound . . .

" . . . Toward the beginning of the eighteenth century there were occasional changes in this attitude, even in the core of Puritan stock. For example, Jonathan Edwards, the Connecticut minister, who was dismissed from his pulpit for his too strict adherence to the Puritan dogma, rather freely expressed his deep love for the beauties of nature which he considered an emanation of the Son of God. 'We behold the fragrant rose and lily . . . the easiness and naturalness of trees and rivers are shadows of His beauty . . . the golden edges of an evening cloud . . . the blue sky . . . the ragged rocks . . . and the brows of mountains.'

"Evaluation of the attitude toward nature of writers of the early nineteenth century is different only because it becomes hard to know whom to select among the many who are taking an increasing interest in the American scene. Above all is of course James Fenimore Cooper, whose *Pioneers* must be regarded as one of the most significant books in this respect. Here is one of its typical passages in which Natty Bumppo expresses his feelings:

' . . . when I felt lonesome . . . I would go into the Catskills and spend a few days on that hill . . . ' 'What see you when you get there?' asked Edwards . . . 'Creation, lad,

'all creation,' said Natty. 'How should a man who has lived in towns . . . know anything about the wonders of the woods? . . . None know how often the hand of God is seen in the Wilderness, but them that rove it for a man's life!'

[The first mention of a national park as such was made by] "George Catlin (1796-1872), another untiring explorer and painter, whose particular interest lay in the 'looks and customs of the vanishing races of native man in America.' Traveling up the Missouri River into the heart of the Indian country (1832), Catlin beheld the vast forest covering the banks of the river and he, perhaps as the first man in this country to do so, had the imagination to conceive the idea that these realms 'might in future be seen (by some great protecting policy of government) preserved in their pristine

beauty and wilderness, in a *magnificent park*, where the world could see for ages to come, the native Indian in his classic attire, galloping his wild horse . . . amid the fleeting herds of elks and buffaloes. What a beautiful and thrilling specimen for America to preserve and hold up to the view of her refined citizens and the world, in future ages! A *nation's Park*, containing man and beast, in all the wild and freshness of their nature's beauty.' This passage was first published in one of the letters Catlin sent to the *New York Daily Commercial Advertiser* in 1833 from the Indian Territory. Thus was planted the seed of an idea which, although it took more than three decades to develop, was immediately well circulated in the widely read New York newspaper.

(To be Continued)

Thomas Ayres sketch of Yosemite Valley in 1855.



DEATH OF A GIANT SEQUOIA

By Gayle S. Alden, Ranger Naturalist

Few giant sequoias have ever died while standing. "Pluto's Chimney" in the Mariposa Grove is one of the exceptions. Death usually occurs only after a tree falls and its roots thus are severed from the trunk. The falling is the result of many factors weakening the tree until its center of gravity has passed the critical point. The tree then is drawn to the earth.

Probably the primary factor in the weakening of a giant sequoia is *fire*. Evidence indicates that years ago, before the area was protected from forest fires, many fires, probably started by lightning striking a pine or fir, swept the area. These fires apparently were ground fires which burned the bases of the trees. Each successive fire burned a little deeper, probably varying in depth at each tree depending upon the amount of debris and undergrowth around the base. The tree's reaction was to grow over the wound and thus restrengthen itself. In some instances this has taken place completely. The base of some trees, however, remained damaged and of course weakened. The lean of the Grizzly Giant and the Wawona tree are probably due in part to this weakened condition of their bases.

Moisture is a second factor which probably weakens the tree from two aspects. First, as the snow which falls in the winter begins to melt in the spring, it moistens and loosens the soil around the roots. The holding power of the roots is then greatly decreased. Second, the late spring snows which are heavier because of higher moisture content weakens

the tree even more. When such a snowfall heaps its weight upon the large branches of a mature tree, it may offset the tree's normal center of gravity.

Man has also done a great deal to cause the destruction of these trees.



By walking around the bases of the trees and by driving automobiles near them, he has caused the root systems of many trees to be weakened. This occurs because of the brittleness of the wood and the shallowness of the root system. As the ground becomes tamped down about the base of the tree, the pres-

sure causes a weakened and cracking of the roots and retards new growth. This action also prevents the growth of other plants and is an agent of erosion. The erosion bares many of the roots, increasing their already weakened condition.

All of the above factors, fire, moisture, and man, accumulate their destructive influences. Then a weakened, scarred giant succumbs in the spring of the year with the help of snow and strong winds. If fully protected, there is no known limit of how long a giant sequoia would live. But such protection has not been afforded them. This can only be done by keeping both fire and men at a "safe" distance. We have all but eliminated fire from the scene. Perhaps some day we may find a way to reduce man's destructive influence upon the giant sequoias. Un-

til then they will continue to periodically fall and die.



AN UNUSUAL SUGAR PINE CONE

By Richard Wason, Ranger Naturalist

While over-sized natural objects may have greater news value, it seems that attention should likewise be called to items of unusually small size as well. Recently Mrs. Lydia Fatzinger of the Big Tree Lodge staff presented us with a mature cone of the sugar pine (*Pinus lambertiana*), that measured only four and one-half inches in length, excluding the stem. Jepson describes the sugar pine cone as being from 13 to 18 inches long, hence a specimen less than half the average minimum length seems noteworthy.

This cone, which was found in the vicinity of the lodge under a sugar

pine, had all the characteristics of typical cones of the species except for size. Its width was about four inches, so it was almost spherical in shape. Seeds had been produced—apparently normal ones from the size of the cavities on the scales—but there were fewer of them than usual. On the basis of a scale count, it was determined that less than two hundred seeds had been formed, (over four hundred is not unusual in a normal cone).

It will be interesting to learn if there are additional records of dwarf cones of this or other coniferous species.

GOPHER "CORES"

By Henry G. Weston, Jr., Ranger Naturalist

Are they sections of heavy cable or rope? Are they enormous snakes? Or are they giant earthworms? The summer visitors who get to the mountain meadows of Yosemite National Park may find long sinuous cylinders of earth lying on top of the ground. Few realize these earthen cylinders are evidence of the winter activity of the pocket gopher.

In the Yosemite area, the pocket gophers, so-called because they possess a fur-lined pocket in each cheek, are the most common type of burrowing animal. However, few live gophers are ever seen by man, primarily because of their secretive burrowing habits. Instead their presence is more commonly recognized by the rather lop-sided mounds of soil they push up on the surface of the ground.

Each winter when the snows cover the meadows, the gophers, instead of hibernating, usually remain active and extend their systems of tunnels from the ground up into the snow. They utilize snow tunnels as well as the more common earth tunnels. Many people believe one of the purposes of these snow tunnels is to enable the gophers to reach plant stems and leaves, embedded in the snow, that are out of reach during the warmer seasons of the year. The vertical range of accessible food sources is thereby greatly increased.

While active during the winter, the gophers push up a great deal of excavated earth from tunnels below the frost-line in the ground and pack it into the snow tunnels, thereby



forming solid earth-cores. This earth apparently freezes and hardens. When the ground cover of snow melts, these earthen "cores" are lowered intact onto the surface of the meadows. The ground may be covered with a veritable network of these earthen "cores" that usually retain their shape for several months despite spring and summer rains. These earthen plugs have been found resting on top of low bushes, over rocks and over fallen branches and logs, indicating that the gophers have tunneled through the snow quite some distance above ground. Gopher food caches as well as the cores of tunnels are also uncovered by the melting snow. For example, in Peregoy Meadow stores of roots of Queen Anne's Lace (*Eulophus*) have been identified.

So as you visit our high country meadows watch for nature's earthen ropes. Stop and picture if you can, the winter activities of these normally subterranean workers, the pocket gophers.

MAYHEM IN CAMP 9

By Richard J. Hertesveldt, Ranger-naturalist



On the 17th of July, Ranger Lee Kellum, while patrolling in Camp 9, found the right foreleg of a young bear cub near the foot bridge to Camp 12. It had been ripped violently from the body. The shoulder blade was still attached to the leg and on the ground nearby were three ribs and a small bit of viscera and blood.

A thorough search of the area revealed no immediate clues that would help solve the mystery - no scuff marks in the dry pine duff, no blood and no body. A few clues were furnished by visitors who were camped nearby. Several persons reported having heard a "bear fight" at about 11 p.m. the previous night and that because of the viciousness of the sounds they did not approach closer to satisfy their curiosity. One girl who had crossed the bridge heard them thrashing in the water and could see the light of her flashlight reflecting in their eyes.

If these observations are correct as reported, two things may be deduced. The lack of blood and scuff

marks can be attributed to the fight having occurred in the stream. The fight between two mature bears or violence reported would indicate a bear and a mountain lion. The remains of the cub bear were very likely carried away by one of the two animals involved.

During the third week of August, the head of a cub bear having fur the same color as that of the leg was found in a bear-bedding area in the rocks along the north valley wall. The guilt was thus focused on a member of its own species. The remainder of the body was not found and may indicate that it was eaten.

The facts at hand, plus a little imagination, bring forth two possible motives for the killing. The motherly instincts of a cubless adult female may have driven her to attempt to take the cub away from its rightful mother. Resentful of such an attempt, the cub's mother fought ferociously for her offspring which became an unfortunate part of the fight. Because of three unprovoked attacks on humans in the Camp 9 area this summer, it has further been suggested that the same large bear, which may be berserk, was responsible for the killing of the cub. The bear that made the unprovoked attacks may have been the mother of the dismembered cub, who in her anguish, struck three times at persons camped in the area of the killing, once nearly scalping a sleeping boy.

Circumstantial evidence is insufficient to convict the criminal in this case; the solution to this crime will undoubtedly remain a mystery.

ANTS IN OUR PLANTS

By Gale S. Alden, Ranger Naturalist

An accepted fact about the Giant Sequoias has been their resistance to attacks by insects, purportedly because of the tannic acid present in the bark, cones, and heartwood. This "fact" must be modified with regard to the carpenter ants.

During the summer of 1954 a visitor to the Mariposa Grove of Giant Sequoias observed the work of ants in a mature living tree and called it to the attention of the ranger-naturalist. Since then further observations have been made. Both living and dead trees have been found in which the carpenter ants are busily at work.

These ants, as is true of their kin, are quite industrious. They have evidently made use of woodpecker holes as access areas. Watching closely, one may observe the ants carrying small particles of heart-

wood to the edge of the hole to let it tumble to the ledge or ground below. If it falls to a ledge, as in the case of a down tree which has splintered, another "crew" is there energetically transporting the particles to the next ledge below. The first evidence of their work is usually a pile of "saw" dust. When one places his ear against the wood of the tree, he discovers it is like listening to a small factory at work.

Several unanswered questions remain with regard to the ants. When did they start their work? What degree of damage is being done by them? Why are they not repelled by the tannin as most insects are? Further study and observations may reveal the answers. Meanwhile, the carpenter ants continue their "depredation" of our Giant Sequoias.

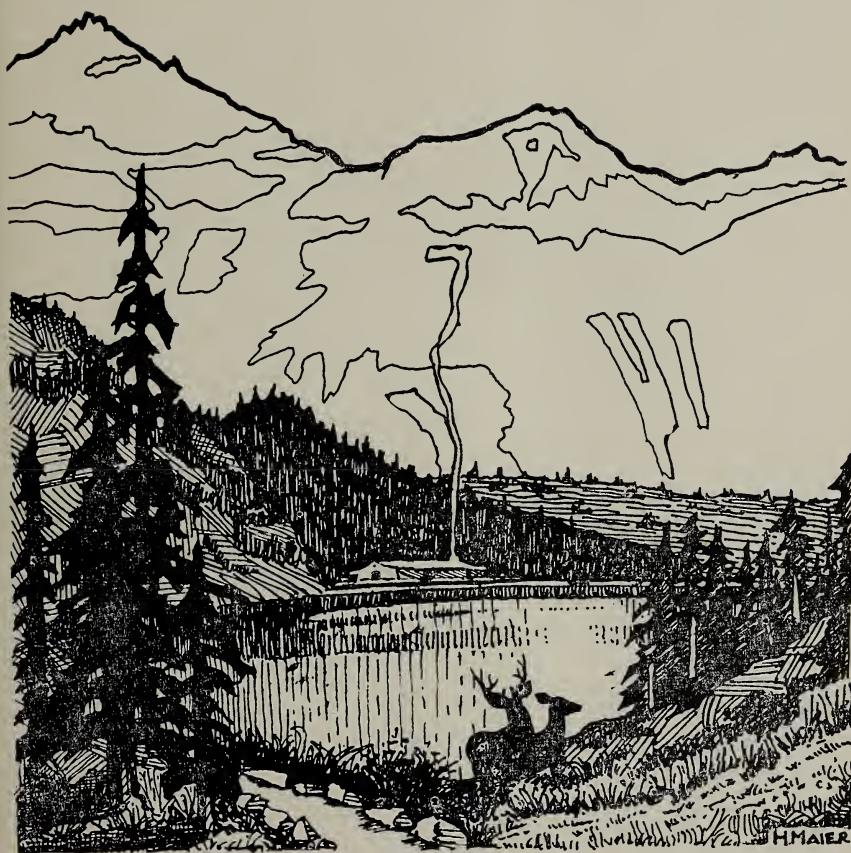


A HIGH-FLYING GROUSE

By Henry G. Weston, Jr., Ranger Naturalist

In 1933, C. H. O'Neal made an interesting observation. He watched a Sierra grouse hen fly off the Overhanging Rock at Glacier Point and disappear far out over Yosemite Valley. A sharp-shinned hawk followed but failed to catch her. About ten minutes later a Sierra grouse chick flew off from the same place but went to the left. At the time the observation was made, O'Neal had the impression that the hen was leading the hawk away from the chick.

The Sierra grouse is a heavy-bodied, chicken-like bird, characteristically found on or near to the ground. Their wings are used normally for short low flights. Here was a record of a grouse flying more than 3,000 feet above the ground in a place where we would expect to find swifts, soaring hawks, or eagles! One wonders how far and where the grouse hen flew before she returned to the ground.



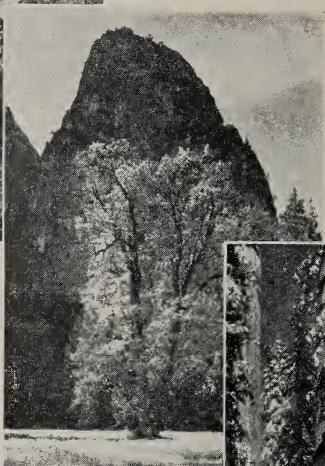
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